

ES8 - N5 Applications of Maths (Numeracy) Inverse Proportion

Worked Solutions Courtesy of Mr R. Milton

①

<u>W</u>		<u>T(H)</u>
3	→	8
1	→	$8 \times 3 = 24$
4	→	$\frac{24}{4} = \underline{6 \text{ HOURS}}$ ✓

② IF 3 ARE PURCHASED
LEFT = $7 - 3 = 4$ GUINER ALES

<u>GP</u>		<u>DRYS</u>
7	→	8
1	→	$8 \times 7 = 56$
4	→	$\frac{56}{4} = \underline{14 \text{ DRYs}}$ ✓

③

C T

$$S \rightarrow 2$$

$$1 \rightarrow 2 \times 5 = 10$$

$$4 \rightarrow \frac{10}{4} = 2.5H = \underline{2 \text{ HRS } 30 \text{ MIN}}$$

④

$$30 - 5 = 25 \text{ HORSES LEFT}$$

H T

$$30 \rightarrow 15$$

$$1 \rightarrow 15 \times 30 = 450$$

$$25 \rightarrow \frac{450}{25} = \underline{18 \text{ DAYS}}$$

⑤

$$\text{RESIDENTS LEFT} = 192 - 48$$

$$= \underline{144}$$

R D

$$192 \rightarrow 18$$

$$1 \rightarrow 18 \times 192 = 3456$$

$$144 \rightarrow \frac{3456}{144} = \underline{24 \text{ DAYS}}$$

⑥ $1200 - 400 = 800$ PEOPLE

PEOPLE GAMES

1200 \rightarrow 8

1 \rightarrow $8 \times 1200 = 9600$

800 \rightarrow $\frac{9600}{800} = \underline{12 \text{ GAMES}}$ ✓

⑦ P T (HOURS)

3 \rightarrow 7

1 \rightarrow $7 \times 3 = 21$

5 \rightarrow $\frac{21}{5} = 4.2 \text{ HOURS}$

$0.2 \times 60 = 12 \text{ MINS}$

$\Rightarrow \underline{4 \text{ HRS } 12 \text{ MINS}}$ ✓

⑧ P T (MINS)

5 \rightarrow 24

1 \rightarrow $24 \times 5 = 120$

3 \rightarrow $\frac{120}{3} = \underline{40 \text{ MINS}}$ ✓

9

$$\frac{G}{7} \rightarrow I(\text{DAYS})$$

$$7 \rightarrow 12$$

$$1 \rightarrow 12 \times 7 = 84 \text{ DAYS}$$

$$G \rightarrow \frac{84}{G} = 10 \text{ DAYS}$$

$$84 = 10G$$

$$G = \frac{84}{10} = 8.4$$

$$\underline{G = 9}$$

MINIMUM NUMBER OF GARDENERS
IS 9.

10

$$6 - 2 = 4 \text{ WORKERS}$$

$$\frac{W}{6} \rightarrow \frac{B}{3}$$

$$6 \rightarrow 3$$

$$1 \rightarrow 3 \times 6 = 18$$

$$4 \rightarrow \frac{18}{4} = \frac{9}{2} = 4.5 \text{ HOURS}$$

$$= 4 \text{ HRS } 30 \text{ MINS}$$

AQ

$$20\% \text{ OF } 5 = 1$$

$$\therefore 5 - 1 = 4 \text{ TRADES PEOPLE}$$

<u>I</u>		<u>D</u>
5	→	16
1	→	$16 \times 5 = 80$
4	→	$\frac{80}{4} = 20 \text{ DAYS}$

$$20\text{TH OCT} + 20 \text{ DAYS} = \underline{9\text{TH NOV}}$$

